

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1-9. (cancelled).
10. (previously presented) A method for extracting a plurality of analytes from a sample, comprising the steps of:
providing a position-addressable array of extraction probes, each probe comprising a solid support and an extraction phase;
providing an array of capillaries addressable by the array of extraction probes, the capillaries containing aliquots of the sample;
contacting the array of extraction probes with the array of capillaries such that the extraction probes are positioned within the capillaries;
separating the array of extraction probes from the array of capillaries, such as that the extraction probes are separated from the sample.
11. (original) The method of claim 10 wherein each capillary tube comprises a different sample.
12. (cancelled).
13. (currently amended) An assembly of extraction probes, each extraction probe comprising a solid support and a combinatorially derived extraction phase, wherein said extraction probes comprise a plurality of different types of extraction phases, and ~~The kit of extraction probes of claim 12~~ wherein the nature of the extraction phases are encoded by the solid supports.
- 14-15. (cancelled).

16. (currently amended) A method for extracting a plurality of analytes from a sample, comprising the steps of:
providing a plurality of extraction probes capable of adsorbing analytes, wherein
each extraction probe comprises a solid support and a combinatorially-derived
extraction phase, wherein said extraction probes are differentiable.~~The method~~
~~of claim 15~~ wherein said extraction probes are encoded, and wherein said
extraction probes are distinguished in dependence on said encoding;
distinguishing between at least two different separated extraction probes;
contacting said extraction probes with a sample suspected of comprising at least one
of the analytes; and
separating said extraction probe from the sample.
17. (currently amended) The method of claim ~~15~~-16 wherein said separated extraction probes are distinguished by an optical method.
18. (previously presented) The method of claim 17 wherein said separated extraction probes are distinguished by a method selected from the group consisting of absorbance, fluorescence, Raman, hyperRaman, Rayleigh scattering, hyperRayleigh scattering, CARS, sum frequency generation, degenerate four wave mixing, forward light scattering, back scattering, and angular light scattering.
19. (currently amended) The method of claim ~~15~~-16 wherein said separated extraction probes are distinguished by a method selected from the group consisting of near field scanning optical microscopy, atomic force microscopy, scanning tunneling microscopy, chemical force microscopy, lateral force microscopy, transmission electron microscopy, scanning electron microscopy, field emission scanning electron microscopy, electrical methods, mechanical methods, magnetic detection methods, and SQUID.

20-32. (cancelled).

33. (currently amended) A method for extracting a plurality of analytes from a sample, comprising the steps of:
providing a plurality of extraction probes capable of adsorbing analytes, wherein each extraction probe comprises a solid support and a combinatorially-derived extraction phase, and ~~The method of claim 6~~ wherein at least one of said extraction phases comprises a self-assembled monolayer;
contacting said extraction probes with a sample suspected of comprising at least one of the analytes; and
separating said extraction probe from the sample.

34-35. (cancelled).

36. (currently amended) A method for extracting a plurality of analytes from a sample, comprising the steps of:
providing a plurality of extraction probes capable of adsorbing analytes, wherein each extraction probe comprises a solid support and a combinatorially-derived extraction phase, and ~~The method of claim 6~~ wherein said extraction phases are selected from a combinatorial library;
contacting said extraction probes with a sample suspected of comprising at least one of the analytes; and
separating said extraction probe from the sample.

37-51. (cancelled).

52. (currently amended) An assembly of extraction probes, each extraction probe comprising a solid support and a combinatorially derived extraction phase, wherein said extraction probes comprise a plurality of different types of extraction phases, and ~~The assembly of claim 12~~ wherein at least one of said extraction phases is a self-assembled monolayer.

53-58. (cancelled).

59. (previously presented) A method for extracting a plurality of analytes from a sample, comprising:
providing a position-addressable array of extraction probes, each comprising a fiber and an extraction phase, wherein each extraction probe is capable of adsorbing an analyte;
contacting said array of extraction probes with sample aliquots suspected of comprising at least one of said analytes; and
separating said array of extraction probes from said sample aliquots.
60. (previously presented) The method of claim 59 wherein each extraction probe comprises a different extraction phase.
61. (previously presented) The method of claim 59 wherein each sample aliquot is different.
62. (previously presented) The method of claim 59 wherein each fiber has a diameter of less than 100 microns.
63. (previously presented) The method of claim 62 wherein each fiber has a diameter of less than 1 micron.
64. (new) A method for extracting a plurality of analytes from a sample, comprising the steps of:
providing a plurality of extraction probes capable of adsorbing analytes, wherein each extraction probe comprises a freestanding particle having a composition that varies along its length and an extraction phase;
contacting said extraction probes with a sample suspected of comprising at least one of the analytes, wherein the sample and the freestanding particle are in solution and the freestanding particle is not bound to, incorporated in, or part of a macrostructure;

allowing the particles and the sample to exist in solution; and
separating said extraction probes from the sample.

65. (new) The method of claim 64 wherein said extraction probes are differentiable,
and wherein the method further comprises distinguishing between at least two
different separated extraction probes.

66. (new) The method of claim 65 wherein said extraction probes are
encoded, and wherein said separated extraction probes are distinguished
in dependence on said encoding.

67. (new) The method of claim 65 wherein said extraction probes are
distinguished by an optical method.

68. (new) A method for simultaneously conducting a plurality of assays to a plurality of
analytes comprising:
contacting a solution that may contain the analytes with a plurality of extraction
probes, wherein each extraction probe comprises a freestanding particle having
a composition that varies along its length and an extraction phase, and wherein
the nature of each extraction phase is encoded by a freestanding particle to
which it is associated, and wherein the sample and the freestanding particle are
in solution and the freestanding particle is not bound to, incorporated in, or part
of a macrostructure; and
detecting for the presence of at least one analyte associated with said extraction
probes.